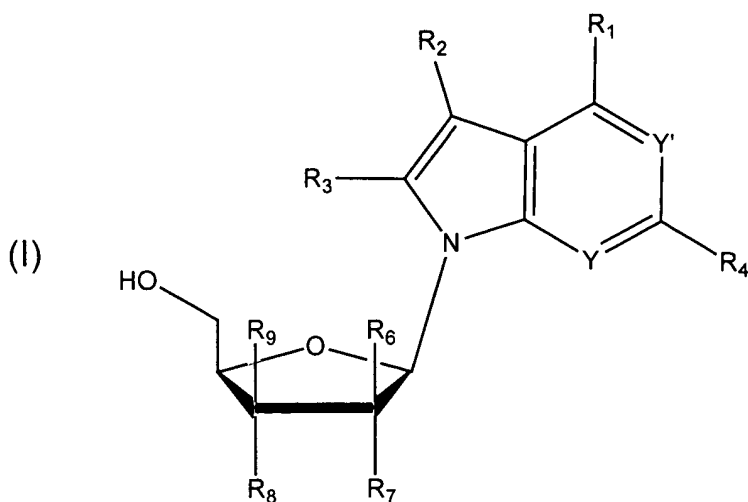


## CLAIMS

1. An anti-viral compound and pharmaceutically acceptable salts thereof, according to structural formula (I):



wherein:

$R^1$  is hydrogen,  $C_1$ - $C_6$  alkyl, Cl, OH,  $C_1$ - $C_4$  alkoxy,  $NH_2$ , or  $NHZR^5$ ;

each of  $R^2$  and  $R^3$  are independently hydrogen,  $C_1$ - $C_6$  alkyl, methyl,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl, Cl, I, Br, F, heterocyclyl, or  $R^2$  and  $R^3$  together with the carbons to which they are attached form a 5-membered ring;

$R^4$  is hydrogen, OH,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkenyl,  $C_1$ - $C_4$  alkoxy,  $NH_2$ ,  $NHZR^5$  or  $N(R^5)_2$ ;

each  $R^5$  is independently  $C_1$ - $C_6$  alkyl,  $C_5$ - $C_6$  cycloalkyl, or aryl;

each of  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  are independently hydrogen, OH,  $C_1$ - $C_6$  alkyl,  $NH_2$ ,  $NHZR^5$ , F, Cl, or Br, or  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  form an epoxide or a double bond;

each of Y and Y' are independently N or CH; and

Z is CO, C(O)NH or  $SO_2$ .

2. The compound according to claim 1 wherein  $R^1$  is  $NH_2$ ;  $R^2$  is a halogen or  $C_1$ - $C_4$  alkyl; and  $R^3$  and  $R^4$  are hydrogen.

3. The compound according to claim 1 wherein  $R^1$  is  $NH_2$ ;  $R^2$  is hydrogen or a halogen;  $R^3$  is a halogen or  $C_1$ - $C_4$  alkyl; and  $R^4$  is hydrogen.

4. The compound according to claim 1 wherein  $R^1$  is  $NH_2$ ; each of  $R^2$  and  $R^3$  are independently hydrogen or a halogen; and  $R^4$  is  $C_1$ - $C_4$  alkyl.

5. The compound according to claim 1 wherein  $R^1$  is  $NH_2$ ;  $R^2$  and  $R^3$  together with the carbon atoms they are attached to form a pentene ring; and  $R^4$  is hydrogen.

6. The compound according to claim 1 wherein  $R^1$  is hydrogen or  $C_1$ - $C_4$  alkyl; each of  $R^2$  and  $R^3$  are independently hydrogen or a halogen; and  $R^4$  is hydrogen.

7. The compound according to claim 1 wherein  $R^1$  is  $NH_2$ ; each of  $R^2$  and  $R^3$  are independently hydrogen or a halogen; and  $R^4$  is  $NHZR^5$ ; wherein Z and  $R^5$  are as defined in claim 1.

8. The compound according to claim 1 wherein  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  are hydrogen.

9. The compound according to claim 1 wherein  $R^6$ ,  $R^8$  and  $R^9$  are hydrogen; and  $R^7$  is OH.

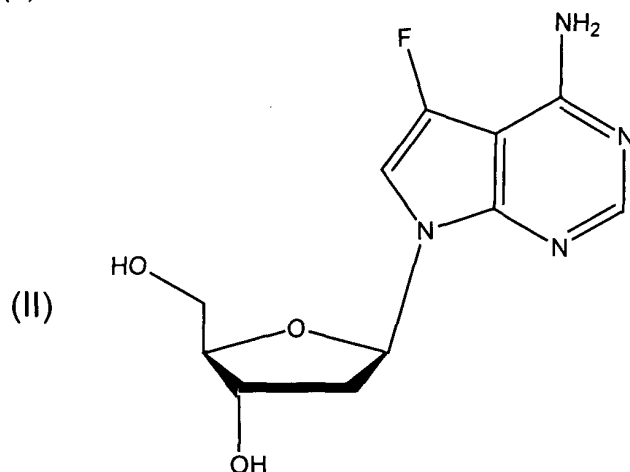
10. The compound according to claim 1 wherein  $R^6$  and  $R^9$  are hydrogen;  $R^7$  is  $C_1$ - $C_4$  alkyl; and  $R^8$  is OH.

11. The compound according to claim 1 wherein  $R^6$  and  $R^9$  are hydrogen;  $R^7$  is  $NHZR^5$ ; and  $R^8$  is OH; wherein Z and  $R^5$  are as defined in claim 1.

12. The compound according to claim 1 wherein  $R^6$  and  $R^9$  are hydrogen;  $R^7$  is F; and  $R^8$  is OH.

13. The compound according to claim 1 wherein  $R^6$  is  $C_1$ - $C_4$  alkyl,  $R^7$  and  $R^9$  are hydrogen; and  $R^8$  is OH.

14. The compound according to claim 1 wherein said compound has structure (II):



15. A pharmaceutical composition comprising a compound according to any one of claims 1 to 14 and a pharmaceutically acceptable carrier, excipient or diluent.

16. A method of treating or preventing a viral infection, comprising administering to a subject in need thereof an anti-viral compound according to any one of claims 1 to 14 in an amount effective to treat or prevent a viral infection.

17. The method of claim 16 in which said anti-viral compound is administered orally.

18. The method of claim 16 wherein said anti-viral compound is administered systemically.

19. The method of claim 16 wherein said viral infection is caused by hepatitis B virus (HBV).

20. A method of treating or preventing a viral infection, comprising administering to a subject in need thereof a composition according to claim 15 in an amount effective to treat or prevent a viral infection.